

CLAIMS

1. A nonaqueous electrolyte battery comprising a positive electrode, a negative electrode, and a nonaqueous electrolyte, wherein the above nonaqueous electrolyte contains at least a cyclic carbonate having a carbon-carbon  $\pi$  bond and the above positive electrode contains a positive active material comprising a composite oxide represented by a composite formula:  $Li_xMn_aNi_bCo_cO_2$  (wherein  $0 \leq x \leq 1.1$ ,  $a+b+c=1$ ,  $|a-b|<0.05$ ,  $0 < c < 1$ ) and having an  $\alpha$ -NaFeO<sub>2</sub>-type crystal structure.
2. A nonaqueous electrolyte battery comprising a positive electrode, a negative electrode, and a nonaqueous electrolyte, wherein the above positive electrode contains a positive active material comprising a composite oxide represented by a composite formula:  $Li_xMn_aNi_bCo_cO_2$  (wherein  $0 \leq x \leq 1.1$ ,  $a+b+c=1$ ,  $|a-b|<0.05$ ,  $0 < c < 1$ ) and having an  $\alpha$ -NaFeO<sub>2</sub>-type crystal structure and the battery is fabricated using a nonaqueous electrolyte containing at least a cyclic carbonate having a carbon-carbon  $\pi$  bond.
3. The nonaqueous electrolyte battery according to claim 1 or 2, wherein the above cyclic carbonate having a carbon-carbon  $\pi$  bond is one or more selected

from the group consisting of vinylene carbonate, styrene carbonate, catechol carbonate, vinylethylene carbonate, 1-phenylvinylene carbonate, and 1,2-diphenylvinylene carbonate.

4. The nonaqueous electrolyte battery according to claim 1 or 2, wherein the above negative electrode contains a graphite.

5. The nonaqueous electrolyte battery according to claim 1 or 2, wherein the above nonaqueous electrolyte uses a mixture of an inorganic lithium salt and an organic lithium salt having a perfluoroalkyl group.